

USSR

UDC: [681.2.085.31.082.32+621.395.632.22-
-525+62-783.3]

ALEKSA, A. K.

"Pneumatic Indicator Facilities"

V sb. Pnevmat. sredstva avtomatiz. gorn. mashin (Pneumatic Facilities for Automation of Mining Machinery), Donetsk, "Donbass", 1969, pp 82-85 (from RZh-Avtomatika, telemekhanika i vychislitel'naya tekhnika, No 1, Jan 70, Abstract No 1A395)

Translation: A new principle of pneumatic signal indication has been developed by the Institute of Mining Mechanics and Technical Cybernetics imeni M. M. Fedorov. This principle may be used as the basis for construction of a group of indicator devices in which the simplest element is a pneumatic BM blinker designed for visual indication of the presence or absence of a pneumatic signal and for indicating the position of the actuating elements of machines and mechanisms. A more complex indicator element is the ITsP-2m digital display unit which is designed for construction of digital display modules in pneumatic systems of automatic monitoring and control. The advantages of display elements of this type lie in the extreme simplicity of assembly and

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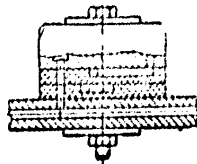
UDC 681.3.056

ALEKSA, A. K., DOTSENKO, S. A., SHMATKOV, N. A., Institute of Mining Mechanics and Technical Cybernetics imeni M. M. Fedorov

"A Penumatic Logic Device"

Moscow, Otkrytiya, Izobreteniya, Promychlennyye Obrazttsy, Tovarnyye Znaki, No 12, 1970. Author's Certificate No 267178, filed 28 Oct 68, p 116

Abstract: This Author's Certificate introduces: 1. A pneumatic logic device which contains single-contact valves mounted in a housing and isolated from one another. As a distinguishing feature of the patent, the device is designed for realization of elementary logic functions by incorporation of a universal elastic insert with commutating channels. 2. A modification of this device with the distinguishing feature of construction for realizing complex logic functions by incorporation of an additional rotating plate with commutating channels.



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2/2 025

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--APO054105

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ADENOVIRUS TYPES 2 AND 5 AND A STRAIN OF B 61D VIRUS PRODUCED IN EXPERIMENTALLY INFECTED 4 DAY OLD DOG PUPPIES AND PUPPIES OF 1 AND ONE HALF TO 2 MONTHS AN INFECTIOUS PROCESS ACCOMPANIED BY BIOCHEMICAL CHANGES AND PATHOMORPHOLOGICAL LESIONS INDICATING INVOLVEMENT OF THE LIVER, LUNGS AND SOME OTHER ORGANS. MORPHOLOGICAL MANIFESTATIONS OF THE INFECTIOUS PROCESS WERE CHARACTERIZED BY SPECIFIC CHANGES IN EPITHELIAL AND MESENCHYMAL ELEMENTS OF THE LUNGS, LIVER, PANCREAS WITH FORMATION OF INTRANUCLEAR INCLUSIONS OF VIRAL NATURE. THE STRAIN OF B 61D VIRUS WAS FOUND TO BE MARKEDLY HEPATOTROPIC. ADENOVIRUS TYPE 5 AFFECTED THE DIGESTIVE ORGANS AND LUNGS ALMOST TO THE SIMILAR DEGREE, WHEREAS ADENOVIRUS TYPE 2 SHOWED MOST MARKED PNEUMOTROPICITY. ADENOVIRUS TYPE 1 HAD POOR BIOLOGICAL ACTIVITY. THE EXISTENCE OF CROSS SUSCEPTIBILITY OF HUMAN BEINGS AND DOGS TO ADENOVIRUSES AND HIGH RATES OF ISOLATION OF THE LATTER FROM PATIENTS WITH INFECTIOUS HEPATITIS DRAW ATTENTION TO ADENOVIRUSES AS A POSSIBLE ETIOLOGICAL FACTOR IN THIS INFECTION.

UNCLASSIFIED

1/2 025 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--REPRODUCTION OF EXPERIMENTAL HEPATITIS IN DOG PUPPIES -U-

AUTHOR--(05)--KERIMZADE, Y.G., ALEKPEROVA, L.I., SHEKHTMAN, A.B., KADYMOV,
SH.R., BEKSHCHANSKIY, M.L.
COUNTRY OF INFO--USSR

SOURCE--VOPROSY VIROSOLOGII, 1970, NR 1, PP 88-93

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--HEPATITIS, DOG, ADENOVIRUS, LIVER, LUNG, PANCREAS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1983/1207

STEP NO--UR/0402/70/000/001/0088/0093

CIRC ACCESSION NO--AP0054105

UNCLASSIFIED

USSR

NEGREYEV, V. F., et al., Korroziya Stali v Okhlazhdayushchikh Sistemakh i Metody Zashchity, 1971, 144 pages

Chapter II. Protection of Steel Equipment of Cooling Systems	32
1. Metal Corrosion Inhibitors and the Mechanism of Their Protective Action in Moving Cooling Waters	33
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1. Corrosion of Steel at High Temperatures and High Rates of Motion of Water in the Presence of Inhibitors	68
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USSR

NEGREYEV, V. F., et al., Korroziya Stali v Okhlazhdayushchikh Sistemakh i Metody Zashchity, 1971, 144 pages

workers at industrial enterprises who work with equipment cooled by circulating cooling systems. It can also be used by students in higher and secondary special technical schools.

There are 36 Figures, 30 Tables, and 154 Biblio. Refs.

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USSR

NEGREYEV, V. F., FARKHADOV, A. A., ABRAMOV, D. M., ~~ALEKPEROVA, A. YU.~~

"Corrosion of Steel in Cooling Systems and Methods for Protection Against It"

Korroziya Stali v Okhlazhdayushchikh Sistemakh i Metody Zashchity [English Version Above], Baku, 1971, 144 pages.

Translation of Annotation: This book describes the corrosion characteristics of cooling water, taking into account various cooling systems, and discusses the basic causes for corrosion of steel equipment in cooling systems, factors influencing this corrosion, and methods of protection from it. The classification of inhibitors and modern interpretations of the mechanism of the protective action of various classes of inhibitors are studied as applicable to cooling media; the use of corrosion inhibitors is shown to be the most effective and economically suitable means for protection in moving corrosive cooling media.

Our studies of the mechanism of action of various inorganic and organic water-soluble steel corrosion inhibitors, both those used at the present time, and the new, more economical products and wastes of petrochemical production processes, are described in detail; serious attention is given to a new trend in this area, the combination of inhibitors, allowing complete prevention of corrosion in many cases.

The book is designed for scientific and engineering personnel who work on problems of corrosion of metals and methods of protection against it, as well as

Acc. Nr. **AP0041899** Abstracting Service: Ref. Code:
CHEMICAL ABST. **4/70** **UR0080**

A

89943s Synthesis and study of 4-(p-alkylthiophenyl)butanols. Akhmedov, Sh. T.; Alekperov, R. K. (USSR). *Zh. Prikl. Khim. (Leningrad)* 1970, 43(1), 191-3 (Russ). A series of 12 p -RC₆H₄S(CH₂)₄OH (R = alkyl) (I) were synthesized from the corresponding p -RC₆H₄SH (II) and Cl(CH₂)₄OH (III). A stirred equimol. mixt. of II and 35-40% aq. NaOH was heated to 75-80°, 1 equiv. III added dropwise, and stirring continued 3 hr at 75-80° to give the following I (R, b.p./mm, n_D^{20} , and d_4^{20} given): Me, 136-7°/1, 1.5648, 1.0685; Et, 152°/1.3, 1.5600, 1.0510; iso-Pr, 156-8°/1, 1.5529, 1.0311; sec-Bu, 162-3°/1, 1.5486, 1.0200; tert-Bu, 154-5°/1, 1.5510, 1.0273; sec-C₃H₇, 170-2°/1, 1.5440, 1.0102; tert-C₃H₇, 160-2°/1, 1.5466, 1.0167; sec-C₄H₉, 178-80°/1, 1.5400, 0.9992; sec-C₄H₉, 184-8°/1, 1.5340, 0.9872; sec-C₄H₉, 192-3°/1, 1.5316, 0.9843; sec-C₄H₉, 198-200°/1, 1.5300, 0.9800; sec-C₁₀H₂₁, 210-4°/1, 1.5263, 0.9719. I were effective as anticorrosion additives in lubricating oils.

C. Parkanyi

REEL/FRA
19751784

USSR

UDC 547.492:547.493

AKHMEDOV, SH. T., AKHUNDOVA, M. A., ALEKPEROV, R. K., Azerbaydzhan State University

"Synthesis of Substituted β -Phenoxyethyl Esters of Chloroformic Acid"

Leningrad, Zhurnal Organicheskoy Khimii, Vol 7, No 10, Oct 71, pp 2127-2129

Abstract: The article describes the synthesis of substituted β -phenoxyethyl esters of chloroformic acid by condensation of substituted β -hydroxyphenetoles with phosgene. The reaction of the synthesized β -o-methylphenoxyethyl chloroformate with ammonia gives the corresponding urethane.

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USSR

UDC 614.1:613.63:665.55

KHANLAROV, N. D., and ALEKPEROV, I. I.

"Illness Rate of Workers in a Petroleum Processing Plant in Connection with Their Working Conditions (A Dynamic Observation)"

Baku, Azerbaydzhanskiy Meditsinskiy Zhurnal, Vol. 47, No 7, Jul 70, pp 50-55

Abstract: As part of an analysis of the illness rate as a function of work capacity, the sanitary hygienic conditions in various plants were studied. Over a period of 3 years, 10,999 cases of time loss from work were analyzed. A relationship was established between general indicators of illness rate and working conditions. Higher rates of illnesses of the nervous system were found among workers in heavy industry (processing of petroleum hydrocarbons). The digestive organs are attacked more frequently among workers involved in the ethylation of benzene. The incidence of illness of the respiratory organs and eyes was found to be high in plants where slaked lime is used. Hypertension was highest among laboratory workers. The data gathered in the study will be used in the development of prophylactic measures for factories.

USSR

UDC 616.233-002-036.12-02:616.24-003.662

ALEKPEROV, I. I., Professor, KNABENGOF, V. G., Candidate of Medical Sciences, and
ALEKPEROV, Ch. A., Azerbaydzhan Scientific Research Institute of Labor Hygiene and
Occupational Diseases imeni M. M. Efendi-Zade, Baku

"Significance of Chronic Bronchitis in the Initial Stages of Silicosis Developing
Under Conditions of Medium-Height Mountains"

Kiev, Vrachebnoye Delo, No 9, Sep 70, pp 133-136

Abstract: Clinical and x-ray studies were made of 60 persons with stage-1 silicosis; 30 of the subjects were miners living in the Dashkesanskiy Mountain region (1,800 to 2,000 m above sea level), and 30 were industrial workers living at sea level. The great majority of the former group were also suffering from chronic bronchitis and emphysema, and presented complaints of dyspnea, cough, expectoration of serous sputum, and chest pains. Subjective, clinical, and X-ray changes in the lungs of those living at sea level were less pronounced. External respiration was impaired in all of the patients, but to a greater extent in the mountain-dwellers. The unfavorable atmospheric and meteorological conditions prevailing in the Dashkesanskiy Mountains (low temperatures, gusty winds, frequent rains, and snow throughout the fall and winter), combined with the dry method of drilling, are particularly conducive to the development of bronchitis.

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THE UNIVERSITY OF CHICAGO

The International Conference, organized by the Permanent Commission and Inter-Regional Association of Education and Science, was held in Kuala Lumpur, Malaysia, from 12-14 September 1978. There were 261 participants from 27 countries, including the USSR. The official languages were English, French and Hindi. Two hundred and fifty papers were presented and there were also oral presentations of 13 audio-tapes and 10 computer.

In Finnish subcommittee there was complete free distribution of labor and training of intermediate medical personnel. It was also followed by representatives of nine countries (Belgium, FR, Australia, Great Britain, Canada, Norway, USA, Finland, and Sweden). The American (Voluntary) reported about the topics of courses for advanced training of intermediate medical personnel engaged in therapeutic and prophylactic services to workers, where

USSR

UDC 616.233-002-036.12-02:616.24-003.662

ALEKPEROV, I. I., Professor, KNABENGOF, V. G., Candidate of Medical Sciences, and
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3/3 021

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0113482

ABSTRACT/EXTRACT--THE LATTER WAS DUE TO HIALURONIC ACID (III) AND CHONDROITINSULFURIC ACIDS (IIII). MOTHER LIQUORS AFTER THE 2ND, 3RD, AND 4TH PPTN. WITH ETOH GAVE A BLUE SPOT OF R SUBF 0.80 DUE TO BETA 1, AND THAT AFTER THE 5TH PPTN. GAVE AN ADDNL. SPOT OF R SUBF 0.98.

FACILITY: AZERB. MED. INST. IM. NARIMANOVA, BAKU, USSR.

UNCLASSIFIED

2/3 021

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0113482

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. HEPARIN (I) WAS MANUF.

INDUSTRIALLY FROM ANIMAL LUNGS USING THE FOLLOWING OPERATIONS: (1) EXTN. OF LUNGS AT PH 9.0-9.5; (2) ACIDIC PPTN. AT PH 2.5 AND EXTN. OF THE PPT. WITH 15PERCENT NACL AT PH 9.0-9.5; (3) 1ST PPTN. WITH ETOH; (4) PROTEINOLYSIS OF A I PROTEIN COMPLEX WITH PANCREATIN; (5) 2ND PPTN. WITH ETOH; (6) 3RD, 4TH, AND 5TH PPTN. WITH ETOH; (7) WASHING I WITH ETOH AND ET SUB2 O. SOLNS. AT EACH STAGE WERE EXAMD. BY ASCENDING PAPER CHROMATOG. ON BYSTRAYA BRAND PAPER IN THE MEQH-H SUB2 O (1:1) SYSTEM OF PH 8.0, FOR 14-16 HR. CHROMATOGRAMS WERE DRIED, IMMERSSED IN A FORMALIN ETOH (1:9) MIXT. FOR 4-5 MIN, DRIED AGAIN, AND DEVELOPED WITH 0.02PERCENT AQ. ACETONE TOLUIDINE BLUE SOLN. AN EXCESS OF THE DYE WAS WASHED WITH 3-5PERCENT ACOH AND H SUB2 O. UNDER THESE CONDITIONS, I GAVE PINK VIOLET OR RED PINK SPOTS ON A LIGHT BLUE BACKGROUDN, AND ACCOMPANYING COMPS. GAVE BLUE SPOTS. AT THE 1ST STAGE NO I WAS DETECTED, POSSIBLY DUE TO THE PRESENCE OF A STABLE I PROTEIN COMPLEX WHICH WAS DECOMPD. AT FURTHER STAGES AT PH 9.0-9.5. ON CHROMATOGRAMS OF THE EXTNS. FROM THE 2ND STAGE, AN OBLONG BLUE SPOT WAS DETECTED NEAR THE STARTING LINE. PPTS. FROM THE 3RD STAGE WERE DRIED AT 60-70DEGREES AND DISSOLVED TO GIVE 1PERCENT SOLN. THIS GAVE A SIMILAR OBLONG SPOT AND 2 VIOLET SPOTS (R SUBF 0.84 AND 0.98). SOLNS. FROM THE 4TH STAGE GAVE THE SAME 2 SPOTS AND A BLUE ONE OF R SUBF 0.73. THE SAME PATTERN WAS OBTAINED WHEN PPTS. FROM THE 2ND, 3RD, AND 4TH PPTN. WERE CHROMATOGRAPHED. THE POWD. I OF ACTIVITY 102 IU-MG GAVE 2 VIOLET SPOTS OF R SUBF 0.82 AND 0.98.

UNCLASSIFIED

1/3 . 021 UNCLASSIFIED PROCESSING DATE--09OCT70
TITLE--STAGE WISE CONTROL OF HEPARIN PRODUCTION USING PAPER CHROMATOGRAPHY
-U-
AUTHOR-(02)-ALIYEV, A.M., ALEKPEROV, A.F.
COUNTRY OF INFO--USSR
SOURCE--KHIM. FARM. ZH. 1970, 4(2), 48-50
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--HEPARIN, DRUG PRODUCTION, PROCESSED ANIMAL PRODUCT, LUNG,
CHEMICAL PURIFICATION, CHROMATOGRAPHIC ANALYSIS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1993/0593 STEP NO--UR/0450/70/004/002/0048/0050
CIRC ACCESSION NO--AP0113482
UNCLASSIFIED

mechanics

THE UNIVERSITY OF CHICAGO

[illegible][illegible][illegible][illegible]

Figure 1. The effect of the number of trials on the number of correct responses. The number of correct responses was significantly higher than the number of incorrect responses in all cases. The number of correct responses was significantly higher than the number of incorrect responses in all cases. The number of correct responses was significantly higher than the number of incorrect responses in all cases.

[illegible][illegible][illegible]

2000-2001

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USSR

ALEXHINA, S. M., Gigiyena primeneniya, toksikol. pestitsidov i klinika otravl., vyp. 9, Kiev, 1971, pp 150-154

an increase in LDG₁ and a decrease in LDG₃, LDG₅ and especially LDG₂ was detected. This indicates disturbances in the SSS. It is considered expedient to use the LDG activity and its isoenzyme spectrum in the practice of toxicologic investigations.

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UDC 615.917

USSR

ALEKHINA, S. M.

"Significance of Studying the Isoenzyme Spectrum of Lactate Dehydrogenase to Estimate the Toxic Effect of Chemicals in Experimental and Clinical Aspects"

V sb. Gigiyena primeneniya, toksikol. pestitsidov i klinika otr. dl. (Hygiene of the Application and Toxicology of Pesticides and the Clinical Aspects of Poisoning -- collection of works), vyp. 9, Kiev, 1971, pp. 150-154 (from RZh-Farmakologiya. Khimioterapevticheskiye sredstva. Toksikologiya, No 2, Feb 72, Abstract No 2.54.776)

Translation: Rats A^{c} were injected with DDT in the amount of 70 mg/kg (1/5 DL_{50}) for two days and 3.5 mg/kg for 1 and 6 months or lindane (1; γ -hexachlorocyclohexane) in a dose of 1.7 mg/kg (1/100 DL_{50}) for 10 days, 1, 3 and 6 months. Under the effect of I, the general activity of the lactate dehydrogenase (LDH) and LDH₁ was reduced in the blood serum, the activity of LDH₂, LDH₃ and LDH₄ type subunits was increased. DDT also lowered the general activity of LDH, but the isoenzyme spectrum changed in the opposite direction: the LDH₁ and LDH₄ activity increased significantly, and the LDH₂ and LDH₃ activity dropped. On examination of 20 people in contact with DDT and I for 10-20 years, 1/2

2/2 018

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125477

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF METHACYL (4,METHYLURACYL) AND OXYMETHACYL (5,HYDROXY,4,METHYLURACYL), TWO PYRIMIDINE DERIVATIVES, AS WELL AS THE EFFECT OF THEIR COMBINATIONS WITH LEVOMYCETIN ON THE ABSORPTION FUNCTION OF THE RETICULO ENDOTHELIAL SYSTEM AND RESISTANCE TO EXPERIMENTAL INFECTIONS WAS STUDIED ON MICE. THE ACTIVITY OF THE RETICULO ENDOTHELIAL SYSTEM WAS ESTIMATED BY CLEARANCE FROM P PRIME32 LABELED STAPHYLOCOCCI INTRODUCED INTRAVENOUSLY. ORAL ADMINISTRATION OF OXYMETHACYL AND METHYLURACYL IN DOSES OF 50 AND 200 MG-KG RESPECTIVELY FOR A WEEK STIMULATED THE ABSORPTION ACTIVITY OF THE RETICULO ENDOTHELIAL SYSTEM SUPPRESSED BY LEVOMYCETIN (50 MG-KG). OXYMETHACYL WAS A MORE ACTIVE STIMULATOR OF THE RETICULO ENDOTHELIAL SYSTEM. IT INCREASED THE EFFICIENCY OF LEVOMYCETIN THERAPY OF EXPERIMENTAL INFECTIONS CAUSED BY STAPH. AUREUS AND S. TYPHIMURIUM TO A GREATER EXTENT THAN METHYLURACYL. FACILITY: BASHKIR MEDICAL INSTITUTE, UFA.

UNCLASSIFIED

1/2 018 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--ACTION OF PYRIMIDINE DERIVATIVES ON PHAGOCYTIC CAPACITY OF RETICULO
ENDOTHELIAL SYSTEM AND LEVOMYCETIN THERAPY EFFICIENCY OF EXPERIMENTAL
AUTHOR--(02)--ALEKHIN, YE.K., PLECHEV, V.V.

COUNTRY OF INFO--USSR

SOURCE--ANTIBIOTIKI, 1970, VOL 15, NR 6, PP 540-544

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--STAPHYLOCOCCUS AUREUS, SALMONELLA TYPHOIDIN, SELECTIVE DRUG
EFFECT, URACIL, PYRIMIDINE, LEVOMYCETIN

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/1866

STEP NO--UR/0297/70/015/006/0540/0544

CIRC ACCESSION NO--AP0125477

UNCLASSIFIED

USSR

TELEGIN, A. A., et al, Avtomatizatsiya Proizvodstvennykh Protse-
sov v Mashinostroyenii i Priborostroyenii. Mezhvedomstvennyy
Respublikanskiy Sbornik, No 8, 1970, pp 124-129

calculating the flux of radiations that get onto the sensitive layers of the receiving element of the photoelectric temperature sensor. A procedure is set forth for determining the optical and geometrical parameters of the radiations that are optimal in the sense of providing for maximum sensitivity and increasing measurement accuracy and expanding the lower limit of the measured temperatures. 3 figures, 2 bibliographic entries.

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USSR

UDC 536.521.082.52

TELEGIN, A. A., ALEKHIN, V. YE.

"The Procedure for Determining the Optimal Values of the Parameters of Photoelectric Temperature Sensors"

Avtomatizatsiya Proizvodstvennykh Protsessov v Mashinostroyenii i Priborostroyenii. Mezhdedomstvennyy Respublikanskiy Sbornik (Automation of Production Processes in Machine Building and Instrument Manufacture. Interdepartmental Republic Scientific and Technical Collection of Works), No 8, 1970, pp 124-129 (from Referativnyy Zhurnal, Metrologiya i Izmeritel'naya Tekhnika, No 12, 1970, Abstract No 12.32.606 by V. S. K.)

Translation: Analytic monitoring of the course of some technological processes may be based upon measurement of the temperature of small sectors of heated surfaces. Such temperature measurements may be accomplished by means of photoelectric temperature sensors which may be placed on equipment of any kind. The sensors permit measurement of the temperature, starting with 423-473°K, of surface sectors of various sizes from various distances and provide for simple and exact sighting. Relationships are obtained for
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USSR

UDC 621.791.16

ALEKHIN, V. P., GUSEV, O. V., and MAZUR, A. I., Moscow

"Investigation of the Effect of Ultrasonic Oscillations on the Production of an Aluminum Joint with Monocrystalline Silicon"

Moscow, Fizika i Khimiya Obrabotki Materialov, No 3, May-Jun 71, pp 100-108

Abstract: Results are presented of the investigation of regularities in joining by ultrasonic welding (USW) small aluminum wires with silicon single crystals with a view to producing ohmic contacts. The dependence of the contact quality on the change of USW parameters was metallographically examined. Depths of disturbed surface layers of Si single crystals were determined by the method of anomalous transmission of X-rays. On the basis of the investigations, optimum parameters of USW were selected. The activating effect of ultrasonic oscillation on the production of a strong joint of Al with Si without their preheating is analyzed. Four figures, 20 bibliographic references.

USSR

UDC 539.374

ALEKHIN, V. P., SHORSHOROV, M. Kh., GUSEV, O. V., and MERKULOV, V. A.

"Method of Studying Surface Plastic Deformation of Single Crystals in the Area of Brittle Rupture"

Monokristally Tugoplavkikh i Redkikh Metallov [Single Crystals of Refractory and Rare Metals -- Collection of Works], Nauka Press, 1971, pp 165-171

Translation: A method is suggested for studying the specifics of the deformation of surface layers in comparison to volumetric deformation of brittle crystals by heating them in the die through an insert of a plate material, and calculation formulas are presented for determination of normal and tangential stresses in the contact zone. The method of photoelasticity is used to show the advantages of this method in comparison with determination of microhardness. Experiments are performed on the loading of Si and Mo crystals through aluminum and lead inserts, and the depth of the layer involved in plastic deformation is determined, sharply decreasing with decreasing temperature from 550 to -196°C . 5 Figures; 14 Bibliographic References.

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USSR

ALEKHIN, V. P., et al., Fizika i Khimiya Obrabotki Materialov, No 4, Jul-Aug 71, pp 155-159

age followed by stabilization to the end of the process. For III there is observed some increase in the welding voltage, i.e., a lowering of temperature for the p-n transitions to room temperature. Five figures, 9 bibliographic references.

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USSR

UDC 621.791.16

ALEKHIN, V. P., MAZUR, A. I., and GUZEV, O. V., Moscow

"Investigation of Temperature Distribution in the Ultrasonic Welding of Semiconductors with Metals"

Moscow, Fizika i Khimiya Obrabotki Materialov, No 4, Jul-Aug 71, pp 155-159

Abstract: A study was made of the temperature distribution directly on the surface and along the thickness of silicon single crystals in the ultrasonic welding of the crystals with aluminum wire (grade AV000) with a diameter of 100 microns. The temperature on the surface of the silicon crystals was determined by the method of the formation of natural thermocouples, while the temperature distribution along the crystal width was determined according to the relationships of the p-n transition parameters. The typical oscillograph curve for the ultrasonic welding process showed three characteristic sections: I -- no ultrasonic oscillations; II -- ultrasonic oscillations ($W = 2.8$ watts, $P(\text{load}) = 150$ grams, $t = 0.6$ sec); III -- ultrasonic oscillations switched off. For I there is a straight drop of voltage in relation to the geometry and condition or state of the touching components (crystal and welding wire). For II there is a reduced drop in the straight drop of voltage.

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ALEKHIN, V. P., et al, "Anomaly of the Mechanical Properties of Crystal Surface Layers", Sb. "Ustalost' metallov i splavov, 1971", pp 48-53

deformation in the near-surface region of the crystal are governed not only by the greater amount of quick-acting homogeneous and various types of heterogeneous sources of shear but also by the different speeds of dislocation mobility at the surface of the crystal (V') and within it (V'') as well as by certain distinctions in the potential lattice shape in these regions. It is assumed (at least, for hard homopolar crystals) that $V' > V''$ and that the Peierls-Nabarro barriers are slightly smaller and their width is greater than the similar parameters in the bulk of the crystal. Cited are certain experimental data to support the above hypothesis. (1 illustration, 26 bibliographic references; summary).

USSR

UDC: 539.385

ALEKHIN, V.P., SHORSHOROV, M.Kh, and GUSEV, O.V., Institute of Metallurgy imeni A.A. Baykov, Academy of Sciences USSR

"Anomaly of the Mechanical Properties of Crystal Surface Layers"

Moscow, Sb. "Ustalost' metallov i splavov". "Nauka" Press, 1971, pp 48-53

Translation: Discussed are certain aspects of the anomalous behavior of plastic deformation near the surface of crystalline materials. The problem lies in the greater ease of formation and mobility of dislocations at the initial deformation stage. It is shown that the critical shear stress and activation energy values in the crystal surface layers are considerably lower and that the activation volume is much higher than the same characteristics in the bulk of the crystal. All possible factors causing the anomaly in the mechanical properties in crystal surface layers are analyzed. It is suggested that the alleviated conditions of plastic

USSR

UDC 539.4.015

SHKRYEV, P. D., and ALEKHIN, V. P., Moscow

"Some Features in the Hardening of Contact Surfaces in the Low-Temperature Friction of Hard Alloys"

Moscow, Fizika i Khimiya Obrabotki Materialov, No 1, Jan-Feb 72, pp 153-156

Abstract: A study was made of changes in the mechanical properties of friction surfaces of hard alloys based on tungsten carbide with brands VK6, VK6M, and VK60M cobalt bonding agents. Microhardness changes of near-surface layers of hard alloys in the process of wear are shown. The main factors responsible for the hardening of contact friction surfaces and the strain characteristics of near-surface friction layers, determined by x-ray structural and electron-microscopy methods, are analyzed by reference to microdeformations. The processes of heterogeneous microdeformation together with the size reduction of tungsten carbide grains and subgrains are said to be principally responsible for the hardening of contact surfaces. Two illustrations, six biblio. refs.

1/1

USSR

UDC 621.791.16.01

MAZUR, A. I., Candidate of Technical Sciences, ALEKHLIN, V. P., Candidate of Physical and Mathematical Sciences, and SHORSHCHOV, M. KH., Doctor of Technical Sciences

"Intensification of the Joint Formation Process During Ultrasonic Welding"

Moscow, Svarochnoye Proizvodstvo, No 8, Aug 73, pp 24-26

Abstract: A method was proposed of programming the contact force in the process of ultrasonic welding which leads to substantial intensification of the seizure process on contact surfaces and to increased weld joint strength. As a result of the tests conducted the optimum mode of ultrasonic welding with contact force programming was established: $P_{init} = 250$ gauss, $P_{add} =$

550 gauss, $t_I = 0.8$ sec, $t_d = 0.4$ sec, $t_n = 20 \cdot 10^3$, $v_{pn} = 20-25$ kgauss/sec.

Five figures, one table, five bibliographic references.

1/1

USSR

ALEKHIN, V. N., PUSHKINA, N. M., Region. nauch.-tekhn. seminar po stat. analizu, modelir. i avtomatiz. kontrolya ob"yektov s konstrukt. slozhn. strukturoy--sbornik, vyp. 6, 1972, pp 72-81

sity the monitoring procedure gives histograms of the output code distribution. Four illustrations, bibliography of two titles. L. P.

USSR

UDC 681.325.65

ALEKHIN, V. N., PUSHKINA, N. M.

"Digital Computer Measurement of the Parameters of Voltage-to-Code Converters"

Taganrog, Region. nauch.-tekhn. seminar po stat. analizu, modelir. i avtomatiz. kontrolya ob'yektov s konstrukt. slozhn. strukturoy--sbornik (Regional Scientific and Technical Seminar on Statistical Analysis, Modeling and Automated Monitoring of Objects with a Structurally Complex Design--collection of works), vyp. 6, 1972, pp 72-81 (from RZh-Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 11, Nov 72, abstract No 11B309)

Translation: The paper deals with questions of automatic measurement of systematic and random errors in voltage-to-code converters in the static mode when the conversion time is negligibly small in comparison with the intervals of input signal variation. It is assumed that the sources of systematic error are impairments of functional units, regular deviations of the structural elements from rated values, or the effect of regular interference, while the regular instrument noises of the units in the converters usually act as the source of random interference. The control parameters are the average value and mean square deviation of the output code. In case of neces-

2/2 017

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AR0120065

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MECHANICAL CHARACTERISTICS ARE GIVEN AND THE PROCEDURE FOR DETERMINING THEM IS DESCRIBED. ATTENTION IS CALLED TO THE HIGH STRENGTH UTILIZATION FACTOR OF WIRE (0.93-0.99), AND IT IS PROPOSED THAT CABLES BE USED AS REINFORCEMENT IN PRESTRESSED FERROCONCRETE STRUCTURES.

UNCLASSIFIED

1/2 017 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--INVESTIGATION OF THE MECHANICAL PROPERTIES OF CORD CABLES -U-
AUTHOR--ALEKHIN, V.K. *A*
COUNTRY OF INFO--USSR
SOURCE--V SB. ZHELEZOBETON. KONSTRUKTSII (FERROCONCRETE STRUCTURES,
REFERENCE--RZH-MEKHANIKA, NO 2, FEB 70, ABSTRACT NO 2V1067
DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR
TOPIC TAGS--MECHANICAL PROPERTY, REINFORCED CONCRETE, HIGH STRENGTH STEEL,
STEEL WIRE

CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1997/1221 STEP NO--UR/0000/69/000/000/0122/0131
CIRC ACCESSION NO--AR0120065
UNCLASSIFIED

USSR

UDC: 621.376.43

ALEKHIN, V. A., USTINOV, Yu. D.

"Singularities in the Design of Pulse-Phase Detectors Used in Digital Frequency Synthesizers"

V sb. Materialy Nauchno-tekhn. konferentsii prof.-prepodavat. sostava Khar'kov. in-ta radioelektron. (Materials of the Scientific and Technical Conference of the Professional and Teaching Staff of the Khar'kov Institute of Radio Electronics), Khar'kov, Khar'kov University, 1969, pp 70-73 (from RZh-Radiotekhnika, No 12, Dec 70, Abstract No 12D47)

Translation: The authors propose two circuit modifications of a pulse-phase detector for a digital frequency synthesizer with phase AFC of the synchronized oscillator. The detectors convert a sequence of duration-modulated pulses before filtration to amplitude-modulated pulses with subsequent detection by a key peak detector. This makes it possible to simplify the low-frequency filter which isolates the DC component of the pulse voltage proportional to the phase difference of the voltages being compared. N. S.

1/1

- 42 -

USSR

UDC 632.7+631.8:633.413

ALEKHIN, V. A., Fruit and Vegetable Institute imeni I. V. Michurin

"The Effectiveness of Application of the Gamma Isomer of Hexachlorocyclohexane in Combination With Mineral Fertilizers on Irrigated Sugar Beet Plantings"

Moscow, Khimiya v Sel'skom Khozyaystve, Vol 10, No 5, 1972, pp 36-37

Abstract: Hexachlorocyclohexane (2%) was used separately, in combination with a superphosphate (P₂₀) and with ammonium nitrate, and in combination with both fertilizers, at a rate of 4 kg of the gamma isomer per 100 kg of seed. Treatment was before planting, which was carried out on dark chestnut slightly alkaline clay loam. Use of the gamma isomer without fertilizers caused no difference in sprouting. There was a significant increase with use of the phosphates, which is explained by their beneficial effect on starch hydrolysis. A decrease in sprouting was observed with the ammonium nitrate. The hexachlorocyclohexane decreased pest damage, while the fertilizers had no effect on this. It was determined that the insecticide increased crop yield by 10%, while the addition of superphosphates led to an even greater increase and use of ammonium nitrate lessened the increase.

1/1

USSR

UFG: 011.366.00000000

ALEKHIN, V. A., KAZAFINOV, Yu. K., KHANUSCHENKO, V. T., KOSYKHIN, A. L. Ya., SMIRNOV, V. K.

"On Designing Devices for Primary Processing of Radar Return Data"

Izv. Leningr. elektrotekh. in-ta (News of Leningrad Electrical Engineering Institute), 1972, vyp. 167, pp 16-22 (from RZhE-4411111111, 16.10.1972, abstract No 12614 [résumé])

Translation: The paper deals with selecting an algorithm for primary processing of a scanning radar signal and modification of structure of memory of the [corresponding] device. It is shown that it is expedient to use weighted summation of quantized signals for short pulse trains, and balanced summation for long ones. It is suggested that the memory could be made in the form of parallel-operating "long" pulse radiation. In the case of a large number of accumulated pulses, it is recommended that the required memory volume be reduced by making the device in accordance with the principle of a multichannel queuing system. Three diagrams, one bibliography of five titles.

1/1

- 25 -

UDC 632.951:633.63

USSR

ALEKHIN, V. A., Fruit-Vegetable Institute Imeni I. V. Michurin

"Row Application of Insecticides Against the Sugar Beet Pests"

Moscow, Khimiya v Sel'skom Khozyaystve, Vol 11, No 8 (118), 1973, pp 36-39

Abstract: Under conditions of irrigational soil cultivation in the European south-eastern portion of the USSR, the row application of hexachlorane and its gamma isomer proved to be effective against the pests of sugar beets. Consistent increase of the crop was achieved using these preparations with high return on the investment. This method of the application of insecticides lowers their consumption per unit area, increases the duration of their effect, and lowers their toxic activity against the desirable entomofauna.

USSR

ALEKHIN, R. M., and DARDA, P. N., Veterinariya, No 9, 1971, pp 44-46

workers for implementation of the necessary measures is specifically outlined. A quarantine is usually removed 21 days after all animals are free of disease symptoms. However, no animals from this zone can be taken to market or transferred to other areas for 12 months after lifting of quarantine. The instructions also contain directions for handling animal products from zones in which an outbreak of FMD occurred. A separate section prescribes measures to be taken in the case of an outbreak of the disease caused by an unknown type and variant of FMD virus. For the purpose of more efficient control, all of the areas of possible occurrence of the disease are classified as "epizootic foci," "unsafe point," and "threatened zone."

Veterinary Medicine

UDC 619:616.988.43:614.44

USSR

ALEKHIN, R. M., and DARDA, P. N., Main Veterinary Administration, Ministry of Agriculture USSR

"Improving the Organization of Foot-and-Mouth Disease Control Measures"

Moscow, Veterinariya, No 9, 1971, pp 44-46

Abstract: An account is given of measures for the prevention and eradication of foot-and-mouth disease (FMD) outlined in the instructions approved by the Main Veterinary Administration of the USSR Ministry of Agriculture in May 1971. Considerable importance is given to prophylactic measures, mainly the protection of animals from disease vectors, regular and timely vaccination of livestock against FMD, and the strict enforcement of a quarantine and other veterinary sanitation measures in the epizootic areas and adjacent zones. Measures to be implemented in case of an outbreak of the disease in any kolkhoz, sovkhoz, seasonal pastures, etc., are dealt with in detail in the instructions. A special section deals with the problem of FMD control in enterprises to which animals are driven for slaughter. If a single animal in a group is found to be infected with FMD virus, all of the animals in the group are killed, and all veterinary sanitation measures applicable to an FMD focus are applied. The responsibility of the managing personnel, veterinary, farm, and enterprise

1/2

USSR

UDC: 621.396.6-181.5(088.8)

GAVRILOV, R. A., REPIN, V. V., ALEKHIN, M. I., BOGACHEV, N. M.

"A Device for Transport and Registration of Substrates and Masks"

USSR Author's Certificate No 268523, filed 27 May 68, published 14 Aug 70
(from RZh-Radiotekhnika, No 6, Jun 71, Abstract No 6V243 P)

Translation: A device is proposed for transport and registration of masks and substrates for making thin-film microcircuits. The device contains substrate holders and mask holders which are connected to the drive mechanism and located on transporting discs. The holders are equipped with centering mechanisms such as pins and sockets, and with heating and cooling elements. To simplify the design of the device and improve the quality of the microcircuits, the mask holder is made in the form of a conical rectangular base with its beveled surfaces resting on the socket of the transporting disc, which is equipped with spring-loaded fingers. The upper face of the substrate holder rests on stationary supports on the transport disc socket, which is also fitted with spring-loaded fingers.

1/1

USSR

UDC: 51

ALEKHIN, I. M., KHAYRUTDINOV, Z. M., TSYBUL'SKIY, G. P.

"On Solving the Problem of Optimum Distribution of a Given Yield of Petroleum or Gas Among Objects by a Dynamic Programming Method"

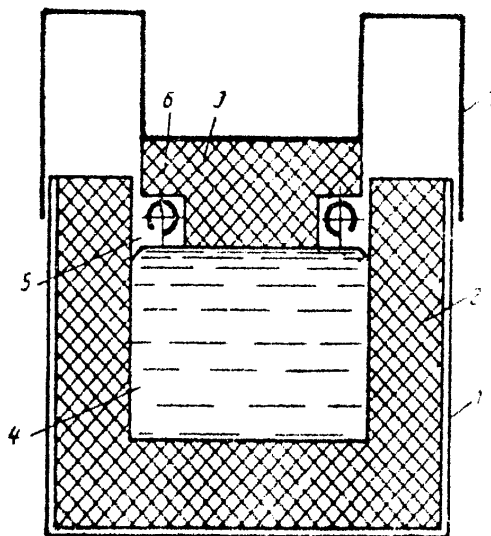
[Tr.] Krasnodar. fil. Vses. neftegaz. NII ([Works] of the Krasnodar Affiliate of the All-Union Scientific Research Institute of Petroleum and Gas), 1971, vyp. 21, pp 60-66 (from EZh-Kibernetika, No 1, Jan 72, Abstract No 1V937)

Translation: The analytical form and a modified computational scheme are presented for solution of the problem of distributing the petroleum or gas yield determined for a territory among objects by using the method of dynamic programming. It is assumed that the extraction capacities of the objects are limited both from below and from above. Both schemes are realized on the "Minsk-22" digital computer. Examples are given of calculations for several cases, and the results found by each scheme are compared. Resumé.

1/1

- 24 -

AA0038315



4.6.66 as 1082038/22-2. MAKAROV, G.S. et al. (19.8.69)
Bul 10/10.3.69. Class 31b². Int.Cl.B 22d.

1/2

LD

19731412

AA0038315

UR 0482

Soviet Inventions Illustrated, Section I Chemical, Derwent, 1-70

238730 LAUNDER FOR MOLTEN ALUMINIUM AND ITS ALLOYS
has slots (5) and tubes (6) in its lid (3)
to pipe protective gas in, at the same time is
cowled (7) to reduce operative gas losses. The lid
floats freely on the actual molten liquid in the
launder and thus prevents impurities entering, at
the same time protecting from the atmosphere.

18
AUTHORS: Makorov, G. S.; Andrevev, A. D.; Zakharevich, N. I.
Alekhin, A. A.; and Kirsanov, V. I.

19731411

2/2 024 UNCLASSIFIED PROCESSING DATE--300CT70
CIRC ACCESSION NO--AT0112072
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DISCUSSION OF THE DYNAMIC BEHAVIOR
OF A CLASS OF OSCILLATORY SYSTEMS UNDERGOING STEADY PERTURBATIONS. A
SYSTEM OF LINEAR DIFFERENTIAL EQUATIONS RELATING VARIOUS PARAMETERS OF
THESE OSCILLATORY SYSTEMS IS DERIVED AND ANALYZED. ALSO OBTAINED ARE
EQUATIONS DESCRIBING THE MOMENTS PRODUCED IN SUCH SYSTEMS BY STEADY
PERTURBATIONS. FACILITY: KIIVS'KII INSTITUT INZHENERIV
TSIVIL'NOI AVIATSII, KIEV, UKRAINIAN SSR.

UNCLASSIFIED

1/2 024 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--DIFFERENTIAL EQUATIONS OF THE MOMENTS OF OSCILLATORY SYSTEMS
EXCITED BY STEADY PERTURBATIONS -U-
AUTHOR--ALEKEYEV, V.M.

COUNTRY OF INFO--USSR

SOURCE--AKADEMIIA NAUK UKRAINS'KOI RSR, DOPOVIDI, SERIIA A
FIZIKO-TEKHNICHI MATEMATICHNI NAUKI, VOL. 32, FEB. 1970, P. 153-154
DATE PUBLISHED----FEB70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--VIBRATION ANALYSIS, DIFFERENTIAL EQUATION SYSTEM, PERTURBATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1992/0908

STEP NO--UR/0441/70/032/000/0153/0154

CIRC ACCESSION NO--AT0112072

UNCLASSIFIED

2/2 021 UNCLASSIFIED PROCESSING DATE--16OCT70
CIRC ACCESSION NO--AP0114547
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A STUDY WAS MADE OF THE
POSSIBILITY OF INDUCTION OF INTENSE IMMUNITY AGAINST BOTULISM, TYPES A
AND B, AND TETANUS FOLLOWING SINGLE AEROSOL REVACCINATION WITH
ASSOCIATED PREPARATIONS. RABBITS AND GUINEA PIGS WHICH WERE VACCINED
TWICE WITH SEXTATOXOID OF THE KHARKOV INSTITUTE OF VACCINE AND SERA 5 TO
6 MONTHS BEFORE WERE SUBJECTED TO REVACCINATION. AEROSOL REVACCINATION
WITH TYPHOID BOTULINUM A AND B TRIVACCINE, AND WITH TYPHOID TETANUS
BOTULINUM A AND B TETRAVACCINE PRODUCED A CONSIDERABLE ELEVATION OF THE
LEVEL OF ANTITOXIN AGAINST ALL THE TOXOIDS INCLUDED INTO THE COMPOSITION
OF THE VACCINES. REVACCINATED RABBITS PROVED TO BE RESISTANT TO
ADMINISTRATION OF 500 DLM OF BOTULIN, TYPE A, AND OF 100 DLM OF TYPE B.
THERE WAS ALSO AN ELEVATION OF THE TITRES OF TYPHOID O HEMAGGLUTININS
IN RABBITS. FACILITY: MOSCOW INSTITUT VAKTSIN I SYYOROTOK IM.
MECHNIKOVA.

UNCLASSIFIED

1/2 021 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--AEROSOL REVACCINATION WITH TYPHOID BOTULINUM A AND B TRIVACCINE AND
WITH TYPHOID TETANUS BOTULINUM A AND B TETRAVACCINE UNDER EXPERIMENTAL
AUTHOR--(05)-ALEKANDROV, N.I., GEFEN, N.YE., YEGOROVA, N.B., YEFREMOVA,
V.N., VORONTSOV, I.V.
COUNTRY OF INFO--USSR

SOURCE--ZHURNAL MIKROBIOLOGII, EPIDEMIOLOGII I IMMUNOBIOLOGII, 1970, NR 5, -
PP 84-89
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--AEROSOL VACCINE, TYPHOID FEVER VACCINE, IMMUNIZATION,
BOTULISM, TETANUS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/0151

STEP NO--UR/0016/70/000/005/0084/0089

CIRC ACCESSION NO--AP0114547

UNCLASSIFIED

USSR

Alebastrova, A. N., Antonova, L. A., Zimin, V. A., Litsyn, N. M., Med. Kibernetika, Kiev, 1972, pp 66-74.

bioelectric currents, apparatus noise), the quality of recording of the EKG may be poor which, in turn, may cause incorrect recognition of elements of the cardiogram and, therefore, improper diagnosis. It is therefore quite important to eliminate "noise," i.e., to produce an EKG in pure form. Smoothing of the curve is performed in several passes. First-power errors are eliminated first. If point (x_i, t_i) is erroneous, the new value of ordinate x_i is assumed equal to the value of the ordinate in the preceding point $\bar{x}_i = x_{i-1}$. In the next stage, second power errors are eliminated, and it is assumed that $\bar{x}_{i+1} = \bar{x}_i = x_{i+1}$. After each stage, visual observation was performed, indicating that it is sufficient to perform three or four stages of smoothing to produce a satisfactory curve. One peculiarity of the EKG curve is its periodicity. An EKG curve can be analyzed for pathology by simply checking its periodicity, without determining the characteristics of the arrhythmia. The algorithm for determination of the EKG period uses the autocorrelation function $K_x(T)$ to calculate the degree of similarity between two neighboring sectors of the EKG. 1 table, 3 figures, 6 biblio. refs.

USSR

ALEBASTROVA, A. N., ANTONOVA, L. A., ZIMIN, V. A., LITSYN, N. M.

"One Algorithm for Preliminary Processing of Electrocardiograms"

Med. Kibernetika [Medical Cybernetics -- Collection of Works], Kiev, 1972, pp 66-74 (Translated from Referativnyy Zhurnal Kibernetika, No 6, 1973, Abstract No 6V704, by V. Mikheyev).

Translation: One possible approach to the problem of preliminary processing of electrocardiograms (EKG) is studied, based on element-by-element analysis of the waves and intervals between them. The analysis program includes a curve-smoothing algorithm, determination of levels of isolines (reading lines), investigation of periodicity, recognition of waves and comparison of data produced with the norms. To determine the level of the isolines, the ordinates of the EKG points are looked upon as values of a certain random quantity and the statistical distribution series is constructed for it. The ordinate with the greatest frequency defines the level of the x_0 isoline.

The positive and negative waves are read from this isoline. In order to input the EKG into a computer, the initial information, produced as an analog voltage, is converted to a digital series. For various reasons (influence of

USSR

DZHUNDUBAYEV, K. D., et al., Zhurnal Obshchey Khimii, Vol 42(103), No 2, Feb 72, pp 340-342

The reaction with phosphorus trichloride yields tri[1-chloro-3-(phenothiazinyl-10)propyl-2] phosphite, while the acid dichloride gives di[1-chloro-3-(phenothiazinyl-10)propyl-2] alkyl(aryl) phosphites. The structure of the compounds was identified by IR-spectroscopy.

USSR

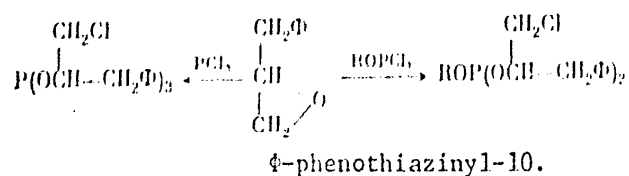
UDC 547.26'118

DZHUNDUBAYEV, K. D., ALDASHEVA, A., BEYSHEKEYEV, Zh., KOZHAKHMETOVA, R. I.,
Institute of Organic Chemistry, Academy of Sciences of the Kirgiz SSR

"Synthesis of Phosphites Based on 10-(2,3-Epoxypropyl)phenothiazine"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(103), No 2, Feb 72, pp 340-342

Abstract: Neutral phosphites are synthesized by the reaction of 10-(2,3-epoxypropyl)phenothiazine with phosphorus trichloride and various alkyl-(aryl)phosphorous acid dichlorides. The reaction takes place in the presence of small quantities of hydrochloric acid:



1/2

USSR

UDC 542.91+661.718.1

DZHUNDUBAYEV, K. D., BEYSHEKEYEV, Zh., ALDASHEVA, A., KOZHAKHMETOVA, R. I.,
SULAYMANOV, A., TOKTOBEKOVA, T., Institute of Organic Chemistry, Academy of
Sciences of the Kirgiz SSR

"Synthesis of Mixed Phosphites Based on 10- $[\beta$ -Hydroxypropyl(ethyl)]phenothia-
zine"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(103), No 2, Feb 72, pp 337-340

Abstract: The authors studied the reaction of 10-(β -hydroxypropyl)pheno-
thiazine and 10-(β -hydroxyethyl)phenothiazine with alkyl(aryl)phosphorous
acid dichlorides, phosphorus trichloride and dimethylamidophosphorous acid
dichlorides:

1/1

USSR

UDC 542.91+661.718.1

BEYSHEKEYEV, ZH., DZHUNDUBAYEV, K., ALDASHEVA, A., KOZHAKHMETOVA,
R. I., TOKTOBEKOVA, T.

"Phosphorylation of 10-(2,3-Epoxypropyl)phenothiazine"

Leningrad, Zhurnal Obshchey Khimii, Vol 41, No 10, 1971,
pp 2207-2209

Abstract: In a continuing search for physiologically active phenothiazine derivatives, a study was made of the reaction of 10-(2,3-epoxypropyl)phenothiazine with β -alkoxyvinylphosphonic anhydrides, thio- and dithioanhydrides. A series of previously unknown crystalline heterocyclic esters were prepared by the cited reaction. The reaction with thioanhydrides gave the esters with a 1,2,3-oxaphosphathiazole ring structure, as indicated by their IR spectra. The yields, mp, and elemental analysis data of the products are tabulated and their preparation is described.

1/1

2/2 007

UNCLASSIFIED

PROCESSING DATE--300C170

CIRC ACCESSION NO--AP0124538

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THEORETICAL RELATIVE ACIDITIES WERE CALCD. FOR NON AQ. SOLVENTS. A LINEAR CORRELATION PK SUBA EQUALS 0.0145, E SUBB 9.71 (E SUBB IS THE RELATIVE ACIDITY) WAS FOUND FOR ALKANOLS. AUTOPROTOLYSIS CONSTS. ARE LINEARLY RELATED TO PK SUBA; PK SUBS EQUALS 0.843, PK SUBA 1.74. THIS EQUATION WAS USED FOR THE PREDICTION OF THEORETICAL ACIDITIES OF PROH, BUOH, N,HEXANOL, N,HEPTANOL, N,OCTANOL, ACETONE, MECOET, AND MECOPR. THE AUTOPROTOLYSIS OCNSTS. OF THE COMPS. NOT USED IN THE CORRELATION ARE IN GOOD AGREEMENT WITH PUBLISHED DATA. FACILITY: MOSK. KHIM. TEKHNOL. INST. IM. MENDELEEVA, MOSCOW, USSR.

UNCLASSIFIED

1/2 007 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--EVALUATION OF AUTOPROTOLYSIS CONSTANTS FOR NONAQUEOUS SOLVENTS BY
CORRELATION EQUATIONS, PK, F PKA MH -U-
AUTHOR--(04)--KRESHKOV, A.P., ALDAROVA, N.SH., TANGANOV, B.B.,
SLAVGORODSKAYA, M.V.
COUNTRY OF INFO--USSR

SOURCE--ZH. FIZ. KHIM. 1970, 44(1), 241-3

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--HYDROGEN ION CONCENTRATION, PROPANOL, BUTANOL, ACETONE,
SOLVENT ACTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/0875 STEP NO--UR/0076/70/044/001/0241/0243

CIRC ACCESSION NO--AP0124538
UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0136229

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTOPROTOLYSIS CONSTS., PK SUBS, WERE ESTD. FOR A NO. OF ALIPHATIC ALCS. (MEOH TO OCTANOL), GLYCOLS, AND KETONES FROM THE LINEAR RELATIONSHIP PK SUBS VS. PK SUBA, WHERE PK SUBA WAS THE ACID CONST. OF A DICARBOXYLIC ACID IN A GIVEN SOLVENT GROUP, AND FROM THE EXPRESSION PK SUBS EQUALS E SUBS -K SUBES, WHERE E SUBS IS THE RELATIVE ACIDITY SCALE AND K SUBES THE COEFF. OF THE RELATIVE ACIDITY SCALE. THE K SUBES VALUES FOR THE SOLVENTS DECREASED IN THE ORDER KETONES GREATER THAN ALCS. GREATER THAN GLYCOLS GREATER THAN H SUB2 O. FACILITY: MOSK. KHIM.-TEKHNOL. INST. IM. MENDELEEVA, MOSCOW, USSR.

UNCLASSIFIED

1/2 009 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--EVALUATION OF NONAQUEOUS SOLVENT AUTOPROTOLYSIS CONSTANTS -U-
AUTHOR--(04)-KRESHKOV, A.P., ALDAROVA, N.SH., SMOLOVA, N.T., RYAGUZOV, A.I.
COUNTRY OF INFO--USSR
SOURCE--ZH. FIZ. KHIM. 1970, 44(4), 1126-7
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--ALIPHATIC ALCOHOL, GLYCOL, KETONE, DICARBOXYLIC ACID, SOLVENT ACTION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3007/0795 STEP NO--UR/0076/70/044/004 '1126/1127
CIRC ACCESSION NO--AP0136229
UNCLASSIFIED

2/2 010

UNCLASSIFIED

PROCESSING DATE--1600T70

CIRC ACCESSION NO--AP0113556

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. POTENTIOMETRIC TITR. OF S CONTG. DICARBOXYLIC ACIDS IN A MEQH, ETOH, HEXANOL, ACETOPHENONE, HCONME SUB2, AND MECH WAS STUDIED. ACIDITY CONSTS., PK SUBA FOR BETA, BETA PRIME, THIODIPROIONIC, DELTA, DELTA PRIME, THIODIVALERIC, OMEGA, OMEGA PRIME, THIODIENANTHIC, OMEGA, OMEGA PRIME, THIODIPELARGONIC, AND OMEGA, OMEGA PRIME, THIODIUNDECANIC ACIDS IN THE ABOVE SOLVENTS WERE EVALUATED. THE CONDITIONS FOR THE DETN. OF OMEGA, OMEGA PRIME, THIODICARBOXYLIC ACIDS IN NONAQ. SOLVENTS BY THE CALCN. OF THE TITRN. CONST., PK SUBT, VALUES WERE EXPLAINED. ALIPHATIC MONOHYDRIC NORMAL ALCS. HAVE A LEVELING ACTION ON OMEGA, OMEGA PRIME, THIODICARBOXYLIC ACIDS, WHICH BEHAVE IN ALC. SOLNS. AS WEAK ACIDS (PK SUBA EQUALS 9-11). THE DEPENDENCES PK SUBA-PK SUBS (CONST. OF SOLVENT AUTOPROTOLYSIS) AND PK SUBT-PK SUBS FOR THE STUDIED COMPS. HAVE A LINEAR CHARACTER, PROVING THE EFFECT OF THE SOLVENT ON THE ACID BASE PROPERTIES AND CONDITIONS OF QUANT. DETN. OF THE ACIDS. THE SEP. DETN. OF THE 2 CARBOXYL GROUPS OF DIACARBOXYLIC ACIDS CONTG. S IN THE C CHAIN INCREASE IN THE SERIES OF HCONME SUB2 IS SMALLER THAN MECH IS SMALLER THAN ME SUB2 CO. A METHOD WAS DEVELOPED FOR THE QUANT. DETN. OF DICARBOXYLIC ACIDS IN DIFFERENTIATING SOLVENTS WITH A STD. C SUB6 H SUB6-MEQH SOLN. OF ET SUB4 NOH. FACILITY: MOSCOW CHEM. TECHNOL. INST., MOSCOW, USSR.

UNCLASSIFIED

1/2 010 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--CHEMICAL ANALYTICAL BEHAVIOR OF SULFUR CONTAINING ALIPHATIC
DICARBOXYLIC ACIDS IN NONAQUEOUS SOLVENTS -U-
AUTHOR-(03)-KRESHKOV, A.P., ALDAROVA, N.SH., TANGANOV, B.B. *A*
COUNTRY OF INFO--USSR
SOURCE--ZH. ANAL. KHIM. 1970, 25(2), 362-8
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--ORGANIC SOLVENT, ALIPHATIC DICARBOXYLIC ACID, CHEMICAL
ANALYSIS, THIOL, DISSOCIATION CONSTANT, POTENTIOMETRIC TITRATION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1793/0685 STEP NO--UR70.107107.0570.104627
CIRC ACCESSION NO--AP0113556
UNCLASSIFIED

USSR

UDC 51

ALDAKIMOVA, M. P., SUKHORUKOV, G. A.

"An Approach to Determining the Quantitative Estimate of the Complexity of Systems"

V sb. Prom. kibernetika (Industrial Cybernetics -- collection of works), Kiev, 1971, pp 101-109 (from RZh-Kibernetika, No 9, Sep 72, Abstract No 9V527)

No abstract

USSR

UDC 51

ALDAKIMOVA, M. P., SUKHORUKOV, G. A.

"Information Approach to Estimating the Complexity of Objects and Control Problems"

V sb. Prom. kibernetika (Industrial Cybernetics -- collection of works), Kiev, 1971, pp 184-193 (from RZh-Kibernetika, No 9, Sep 72, Abstract No 9V529)

No abstract

2/2 015

UNCLASSIFIED

PROCESSING DATE--23OCT7

CIRC ACCESSION NO--AP0120352

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THIS WORK INVESTIGATED THE EFFECT OF PT AND PD ON THE CATALYTIC ACTIVITY OF RH ADSORBED ON A SIO SUB2 CARRIER. THE MIXED CATALYSTS CONTAINED 0.5 WT. PERCENT OF RH ON SIO SUB2 AND VARIOUS AMTS. OF PT AND PD. IN ADDN. TO THESE RH PT-SIO SUB2 AND RH PD-SIO SUB2 CATALYSTS, SINGLE CATALYSTS RH-SIO SUB2, PT-SIO SUB2 AND PD-SIO SUB2 WERE ALSO USED FOR COMPARISON. CATALYTIC ACTIVITY WAS MEASURED FOR HYDROGENATION OF BENZENE AT 90DEG CEN, WITH VOL. RATIO H SUB2:C SUB6 H SUB6 EQUALS 4:1, AND RATE OF H SUB2 WAS AT 1 ATM SUPPLY 1.1 AND 2.5 L.-HR. THE ACTIVITY WAS EXPRESSED IN PERCENT CONVERSION OF BENZENE INTO CYCLOHEXANE. EARLY RESULTS SHOWED THAT RH-PT-SIO SUB2 CATALYSTS EXHIBIT GREATER ACTIVITY THAN THE RH-SIO SUB2 CATALYSTS, AND THAT THE ACTIVITY INCREASES PROPORTIONALLY TO THE INCREASE OF THE CONTENT OF PT. THE ACTIVITY OF CONCURRENTLY DEPOSITED RH-PT-SIO SUB2 CATALYST IS CONSIDERABLY LARGER THAN THE ADDITIVE ACTIVITIES OF RH-SIO SUB2 AND PT-SIO SUB2 CATALYSTS CONTG. THE SAME AMTS. OF RH AND PT. WHEN PD WAS INTRODUCED INTO THE RH-SIO SUB2 CATALYST, THERE WAS SOME NOT VERY PRONOUNCED BUT UNMISTAKABLE REDN. IN THE CATALYTIC ACTIVITY. THIS CONTRASTING BEHAVIOR IS ASCRIBED TO DIFFERENT ELECTRONIC INTERACTIONS BETWEEN RH AND PT, AND RH AND PD, SINCE ELECTRONIC STRUCTURES OF PT AND PD ARE DIFFERENT. IT IS, HOWEVER, QUITE POSSIBLE THAT THE CARRIER SIO SUB2 IS LARGELY RESPONSIBLE FOR THE EFFECT. FACILITY: EREVAN. POLITEKH. INST. IM. MARKSA, EREVAN, USSR.

UNCLASSIFIED

1/2 015 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--MIXED ADSORPTION CATALYSTS FOR HYDROGENATION. XVI. RHODIUM PLATINUM
AND RHODIUM PALLADIUM CATALYSTS ON SILICA GEL -U-
AUTHOR-(03)-ALCHUDZHAN, A.A., YEDIGARYAN, N.Z., MANTIKYAN, M.A.

COUNTRY OF INFO--USSR

SOURCE--ARM. KHIM. ZH. 1970, 23(1), 3-8

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--RHODIUM ALLOY, PLATINUM ALLOY, PALLADIUM ALLOY, CATALYST,
HYDROGENATION, ADSORPTION, SILICA GEL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1997/1573

STEP NO--UR/0426/70/023/001/0003/0008

CIRC ACCESSION NO--AP0120352

UNCLASSIFIED

USSR

UDC 539.374

ALPERT, V. N.

"The Yield Condition for Elastoplastic Plates"

Moscow, Mekhanika Tverdogo Tela, No 6, Nov-Dec 72, pp 131-139

Abstract: An arbitrary, kinematically possible field of deformation rates is used to determine the yield condition for elastoplastic plates; this makes it possible to construct a complete yield surface in a space of generalized stresses. The constructed yield surface can be used for solving specific problems of the theory of limit equilibrium, and for estimating errors originating in the approximation of this surface by approximate yield conditions. 3 figures. 10 references.

1/1

USSR

UDC 615.371:576.851.595]-073

PREGER, S. M. and AL'BITSKAYA, N. B., Torsh Institute of Vaccines and Sera

"Using the Flocculation Test to Determine the Titers of Antibotulinus Sera Type B"

Moscow, Laboratornoye Delo, No 3, 1973, pp 188-189

Abstract: To titrate antitoxin sera type B requires the use of toxoids containing at least 10 EC with an EC/Lf ratio of 0.8 to 1.0. Lf (flocculent units) are calculated from the formula:

$$Lf = \frac{\text{serum titer} \times \text{serum dilution with initial flocculation}}{\text{serum dilution} \times \text{number of milliliters of toxoid}}$$

Flocculation starts within 2 hours. Applying the technique to sera from 2 of crude and concentrated botulinus toxoids, the authors were able to titrate 70% of the type B sera (95); the other 30% were titrated from the flocculent neutralization reaction in white mice.

1/1

USSR

UDC 632.951:632.664

ALAN, M. N., Abkhazskaya SSR Toxicological Laboratory, All-Union Institute of Plant Protection

"Application of Metaldehyde Against Slugs in Abkhaziya"

Moscow, Khimiya v Sel'skom Khozyaystve, Vol 10, No 5, May 7, pp 33-34

Abstract: To control a number of slugs, metaldehyde was tested in 1969-70 in the Sukhumi State Nursery for decorative plants. A 50% wetting powder and a 5% granular preparation, both of domestic manufacture, and a foreign 50% wetting powder were used in field experiments, which were repeated three times on 35-150 square meter plots. Production tests were also conducted at the state farm of the Chernomorskiy Decorative Garden. In both types of experiments it was found that the wetting agent had somewhat greater immediate effect, with both killing nearly 100% of the slugs. The granulated preparation had more lasting effects, particularly after 20 days. There was no appreciable difference in effectiveness between the domestic and the foreign made metaldehyde.

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USSR

UDC 576.851.553.097.29.083.3

PREGER, S. M., AL'BITSKAYA, N. R., and POLESHCHUK, L. N., Tomsk Institute of Vaccines and Sera

"Change in Cobalt, Iron, and Copper Levels in Culture Medium During Toxin Formation by A and B Botulism Agent"

Moscow, Zhurnal Mikrobiologii, Epidemiologii, i Immunobiologii, No 2, 1973, p 139

Abstract: Concentrations of metallic ions in Gluzman broth, used industrially in producing A and B botulism antigens, were determined prior to and up to 7 days after seeding with botulism agent, and 21 days after 2-week storage of 7-day cultures at 4-5°C. Iron, copper, and cobalt concentrations decreased significantly during the 7 days after seeding. Cold storage had no effect on iron and copper concentrations. Experiments indicated that cobalt is utilized in vitamin B₁₂ synthesis particularly intensively during toxin formation. Reduction of metallic ion concentrations was accompanied by increases in toxicity and rate of antigen formation. These results indicate that iron, copper, and cobalt are necessary in maintaining normal vital processes of botulism agents.

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2/2 023 UNCLASSIFIED PROCESSING DATE--CONV70
CIRC ACCESSION NO--AP013499
ABSTRACT/EXTRACT--(U) OP-05 ABSTRACT. THE ADDN. OF 1,1,1,1-TETRACHLOROETHYLENE TO ISOBUTYLENE CATALYZED BY NA OR UV LIGHT GAVE ONLY THE NORMAL ADDN. PRODUCTS, SUCH AS NE SUB2 C(OR)CH SUB2 SET. THE ADDNS. CATALYZED BY BF SUB3. AT 5082 O GAVE 1:2.5 NORMAL, A NORMAL ADDN. PRODUCTS, AT 20DEGREES AND A 1:1 PRODUCT MIST. AT 55DEGREES. THE UV LIGHT CATALYZED ADDNS. PROCEED BY A FREE RADICAL MECHANISM.
FACILITY: Leningrad. Leningrad. Inst. IM. Leningrad, USSR.

UNCLASSIFIED

1/2 028 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--CHEMISTRY OF ORGANIC OXIDES. XXXVI. ADDITION OF THIOLS AND ALLENES
TO ISOBUTYLENE OXIDE -U-
AUTHOR--(02)--KHAZENOVA, I.A., ALBITSKAYA, V.H.
COUNTRY OF INFO--USSR
SOURCE--Zh. Org. Khim. 1970, 6(5), 935-8.
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--ORGANIC OXIDE, THIOL, UV LIGHT, CATALYST, SODIUM, BORON
FLUORIDE, CHEMICAL REACTION MECHANISM, ORGANOSULFON COMPOUND
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3006/1325 STEP NO--0870306/70/006/009/095570938
CIRC ACCESSION NO--AP0134993
UNCLASSIFIED

USSR

UDC 547.26'118

ZAVLIN, P. M., RODNYANSKAYA, E. R., D'YAKONOV, A. I., and AL'BITSKAYA, V. M.,
Leningrad Institute of Motion-Picture Engineers

"Reaction of Alkylphosphorous Acid Monochlorides With Thioethylene Glycol"

Leningrad, Zhurnal Obshchey Khimii, Vol 41, No 8, Aug 71, pp 1874-1875

Abstract: In the reaction of alkylphosphorous acid monochlorides with thioethylene glycol in the presence of a hydrogen chloride acceptor -- triethylamine -- first the hydroxy group reacts to give β -mercaptoethyl alkyl phosphites, whose presence in the reaction products is confirmed by IR and PMR spectra. β -Mercaptoethyl alkyl phosphites are converted in the cold to the corresponding 1,3,2-oxathiaphospholane derivatives. The reaction of ethyleneglycolphosphorous acid chloride with thioethylene glycol gives a spiran derivative.

USSR

UDC 547.26'118

ZAVLIN, P. M., D'YAKONOV, A. N., AL'BITSKAYA, V. M., and BABKINA, E. I.,
Leningrad Institute of Cinematographic Engineers

"Reaction of Nonsymmetric Diesters of Phosphonous Acids With Nucleophilic Reagents"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 7, Jul 73, p 1651

Abstract: Reactions of nonsymmetric diesters of cyclohexylphosphonous acid with decyl alcohol were studied. In the process of equilibrium transesterification, this equilibrium is shifted in the direction of the low-boiling product. In contrast to the derivatives of phosphonic acids, the phosphonous acids show apparently no effect of the vacant 3d orbitals of tricoordinated phosphorus atom on the direction of transesterification processes.

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USSR

UDC 547.26'118

ZAVLIN, P. M. D'YAKONOV, A. N., AL'BITSKAYA, V. M., and BABKINA, E. I.,
Leningrad Institute of Cinematographic Engineers

"Reaction of Dithioesters of Cyclohexylphosphonous and Thiophosphonic
Acids With Decyl Alcohol"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 12, Dec 73, p 2788

Abstract: Heating S-phenyl-SObenzylcyclohexyldithiophosphonite or its
trithio homolog with decyl alcohol at 210° for 6 hrs yields the respective
thiophenol and O-decyl-S-benzylcyclohexylthiophosphonite. When S-heptyl-
S-benzylcyclohexyldithio(trithio)phosphonite is heated with decyl alcohol,
the products are heptylmercaptain and O-decyl-S-benzylcyclohexylthiophos-
phonite.

USSR

UDC 619.616.9-097:616.981.42:636.22/.28

AL'BERTYAN, M. P., All-Union Institute of Experimental Veterinary Medicine

"Immunomorphological Reactions in Calves Vaccinated Against Brucellosis"

Moscow, Veterinariya, No 10, 1971, pp 40-41

Abstract: Vaccination of 2- to 8-month-old calves with *Brucella abortus* 104 M (20 and 60 billion microbial cells) caused moderate enlargement of the lymph nodes, proliferation of histiocytes, and other morphological changes characteristic of the vaccinal process. The changes induced by vaccination with *Brucella abortus* strain 19 in the same doses were similar but less pronounced. The immunomorphological reactions to vaccination with both strains were milder after 86 days than after 33 days. There were no signs of destructive necrobiotic changes.

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2/2 021 UNCLASSIFIED PROCESSING DATE 10/11/70
 CIRC ACCESSION NO--AP0126643
 ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHORS STUDIED THE VALUE OF FUNCTIONAL TOURNIQUET TEST FOR THE PREOPERATIVE RECOGNITION OF THE POSSIBILITY OF DEVELOPMENT IN PATIENTS OF THROMBOEMBOLIC COMPLICATIONS. SUCH A CONDITION OCCURS AS THE RESULT OF REDUCED ACTIVITY OF THE ANTICOAGULATION SYSTEM, THE COMPONENTS OF WHICH ARE THE FIBRINOLYTIC ACTIVITY AND HEPARIN. A TOTAL OF 342 PATIENTS WERE EXAMINED. OUT OF 68 PATIENTS CONSIDERED AS SUSCEPTIBLE TO THROMBOEMBOLIZATION ACCORDING TO DATA OF THE TOURNIQUET TEST THROMBOEMBOLIZATION OF THE PULMONARY ARTERY DEVELOPED IN 5 PATIENTS. SUCH COMPLICATIONS DID NOT DEVELOP IN 255 PATIENTS CONSIDERED AS PRONE TO THROMBOEMBOLIZATION. IN 19 CASES THE RESULTS OF THE TEST WERE CONSIDERED AS DOUBTFUL. THE TOURNIQUET TEST IS CONSIDERED AS VALUABLE FOR PREOPERATIVE DETERMINATION OF THE POSSIBILITY OF DEVELOPMENT OF THROMBOEMBOLIZATION IN PATIENTS.
 FACILITY: KLINIKA FAKUL'TETSKOY KHIRURGII 2-GO LECHEBNOGO FAKUL'TETA I MOSKOVSKOGO MEDITSINSKOGO INSTITUTA. FACILITY: IM. I.M. SECHENOVA I LABORATORIYA SVERTYVANIYA KROVI MOSKOVSKOY GORODSKOY KLINICHESKOY BOL'NITSY NO. 61.

UNCLASSIFIED

172 021 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--PREOPERATIVE RECOGNITION OF THE POSSIBILITY OF DEVELOPMENT OF
THROMBOEMBOLIZATION IN PATIENTS -U-
AUTHOR-(02)-ALFEROVA, L.N., ALBERT, L.B. A
COUNTRY OF INFO--USSR
SOURCE--KLINICHESKAYA MEDITSINA, 1970, VOL 48, NR 5, PP 139-142
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--BLOOD VESSEL, EMBOLISM, FIBRINOLYSIS, HEPARIN, DIAGNOSTIC
MEDICINE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3001/1003 STEP NO--UR/0497/10/046/005/0135/0167
CIRC ACCESSION NO--AP0126643
UNCLASSIFIED

USSR

UDC 517.948:517.519.3

AL'BER, Ya. I.

"Continuous-Descent Methods in Problems of Minimizing Functionals and Solving Operator Equations"

Moscow, Tr. 3-y zimney shkoly po mat. programmir. i smezhnym vopr. 1970 (Transactions of the Third Winter School on Mathematical Programming and Related Problems, 1970), No 1, 1970, pp 45-65 (from Referativnyi Zhurnal -- Matematika, No 7, July 71, Abstract No 7B859, by B. Polyak)

Translation: The differential descent method for the problem of minimizing the functional $f(x)$, $x \in H$ in Hilbert space involves constructing the trajectory $x(t)$:

$$\frac{dx}{dt} = -\|f'(x)\|^{-2} f'(x), \quad x(0) = x^0.$$

This article weakens (compared with earlier known results) conditions for the smoothness of $f(x)$ and the degree of degeneracy of $f(x)$ in the neighborhood of the minimum insuring the convergence of $x(t)$, as $t \rightarrow \infty$, to the minimum point. A similar investigation is conducted for this method as applied to the solution of nonlinear operator equations. (15 bibliographic references)

1/1

USSR

UDC 621.372.852.3(088.8)

ALBATS, M. Ye., AMIANTOVA, L. N., GORYACHEV, Yu. P., SUCHILKIN, V. F.

"Discrete Wave Guide Attenuator"

USSR Author's Certificate No 24880, Filed 15 Aug 67, Published 15 Jan 70
(from RZh-Radiotekhnika, No 8, Aug 70, Abstract No 8B212 P)

Translation: The proposed discrete wave guide attenuator consists of a segment of a rectangular wave guide and a series of controlled p-i-n-diodes included in parallel in it with displacement relative to the longitudinal axis. These diodes operate in the closed or open states. In order to decrease the number of diodes, the p-i-n-diodes are installed in the slots of the resonance diaphragms with displacements from the axis of the wave guide segments such that the attenuation introduced by the individual diodes in the open state varies according to the law: $2^{n-1} \cdot Q$ where n is the order number of the diode, and Q is the step variation of attenuation of the attenuator. There is one illustration.

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USSR

UDC 621.43.011:533;621.5:533

ALBADAYEV, L. I., BAKHMAN, N. N.

"Certain Characteristics of the Burning of Organic Liquids and a Layer of Powder"

V sb. 11-ya Vses. konf. po vopr. ispareniya, goreniva i gaz. dinamike dispersn. sistem, 1972 (11th All-Union Conference on Problems of Evaporation, Combustion and Gasdynamics of Disperse Systems, 1972 -- Collection of Works), Odessa, 1972, p 43 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3B419)

Translation: The results of a study of the rate of burning of a liquid from a layer of powder are presented. It was found that the dispersion of the powder and the viscosity of the fuel have an effect on the rate of burning. A physical explanation of these results is proposed. T. A. Girshovich.

USSR

KASATOCHKIN, S. V., et al., Fizika Tverdogo Tela, Vol 15, vyp 1, Jan 73, pp 312-313

Thus, there are great differences in the variation law for the parameter b_4 , depending on the way in which the change in the lattice parameter is realized.

The authors thank S. A. AL'TSHULER and B. Z. MALKIN for discussing the results of the work, L. D. LIVANOVA and M. S. ORLOV for providing quality samples, and YU. A. TIMOFEYEV for frequent advice and assistance in the work.

2/2

Stress, Strain and Deformation

USSR

KASATOCHKIN, S. V., ALAYEVA, T. I., YAKOVLEV, YE. N., and VERESHCHAGIN, L. F.,
Institute of High-Pressure Physics, Academy of Sciences USSR, Akademgorodok,
Moscow Oblast

"Pressure Change of Cubic Splitting Parameter in EPR Spectrum of Gd^{3+} Ion in
Fluorite-Type Crystals"

Leningrad, Fizika Tverdogo Tela, Vol 15, vyp 1, Jan 73, pp 312-313

Abstract: The authors studied the effect of hydrostatic pressure (up to 10
kbar) on the spin hamiltonian parameters of the Gd^{3+} ions in fluorite-type
crystals. CaF_2 , SrF_2 , and BaF_2 doped with Gd^{3+} ions (0.1 at. percent) were
studied. It was found that the parameter b_4 varies according to the law

$$b_4 \approx a^n,$$

where $n \approx 7$. Previous experiments on the variation of the Gd^{3+} ion EPR
spectrum with temperature in fluorite-type crystals (T. REVAY) give the value
 $n \approx 15$.

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USSR

SHANDITSEV, V. A., VERESHCHAGIN, L. F., YAKOVLEV, YE. N., GRAZHDANKINA, N. P.,
and ALAYEVA, T. I., Institute of High-Pressure Physics, Academy of Sciences
USSR, Akademygorodok, Moscow Oblast

"Electron Magnetic Resonance Study of Chromium Telluride at Pressures up to
50 Kbar"

Leningrad, Fizika Tverdogo Tela, Vol 15, Vyp 1, Jan 73, pp 212-215

Abstract: The electron magnetic resonance method ($\lambda \approx 3.2$ cm) was used to study the magnetic transition in chromium telluride at pressures up to 50 kbar and temperatures of 100-360° K. It was found that the linear variation of the Curie point with pressure continues up to 25 kbar. At pressures from 30⁺⁴ and up to 50 kbar, the resonance line characteristic of the ferromagnetic phase of CrTe is not observed in the 100-300° K temperature range. The disappearance of the resonance line of the ferromagnetic phase may be due to the appearance of antiferromagnetic ordering at pressures above 30 kbar in chromium telluride, although the antiferromagnetic resonance line cannot be observed in this frequency region.

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ALAVIDZE, G. R., PASKONOV, V. M., Sb. rabot Vychisl. tsentra Mosk. un-ta, 1970, vyp. 15, pp 103-109

to power generating conditions leads to development of temporary gas-heating regions in the channel. A rapid increase in stagnation pressure at the input to the channel causes considerable gradients of the electrode potential and hydrodynamic parameters. The inductance in the external circuit causes aperiodic damped oscillations of gasdynamic and electrical parameters. Increasing this inductance increases the time of transient processes and the amplitude of the oscillations. Yu. N. Denisov.

USSR

UDC: none

ALAVIDZE, G. R., PASKONOV, V. M.

"Investigation of Nonstationary Flows in a Magnetohydrodynamic Generator Channel"

Sb. rabot Vychisl. tsentra Mosk. un-ta (Collection of Works of the Computing Center of Moscow University), 1970, vyp. 15, pp 103-109 (from RZh-Mekhanika, No 4, Apr 71, Abstract No 4B32)

Translation: Nonstationary subsonic flow of an ideal inviscid electrically conductive gas is theoretically analyzed in an infinitely subdivided channel of constant cross section in a magnetohydrodynamic power generator. In contrast to the work by A. L. Genkin and L. A. Kudryashova (Zh. prikl. mekhan. i tekhn. fiz., 1967, No 2, pp 41-44 -- RZh-Mekh., 1967, 10B38), the nonlinear gasdynamic equations are solved by the method of finite differences simultaneously with the equation for the current in the external electric circuit including resistance and inductance. It is shown as a result of the calculations that effects due to unsteadiness of processes in the MHD generator are appreciable. Thus a transition from no-load

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USSR

TER-AVFTISYAN, A. T., and ALAVERDYAN, M. I., Biologicheskii Zhurnal Armenii, Vol 24, No 3, Mar 71, pp 112-115

radiation sickness, with the content of gamma-globulins dropping to zero or close to zero in some instances. The level of alpha- and beta-globulins was affected similarly, while that of albumins rose to some extent. The most pronounced post-irradiation hypoglobulinemia was produced by combinations of immunosuppressants. Simultaneously with the reduction of globulin content, there were decreases in leukocyte count, hemoglobin content, and the erythrocyte count during the 3-4 weeks after irradiation in rats treated with immunosuppressants.

2/2

USSR

UDC 539.104

TER-AVETISYAN, A. T., and ALAVERYAN, M. I., Radiobiology Sector, Ministry of Health, Armenian SSR

"The Effects of X-Rays and of Some Immunosuppressants on the Immunobiological Characteristics of the Organism"

Yerevan, Biologicheskii Zhurnal Armenii, Vol 24, No 3, Mar 71, pp 112-115

Abstract: Rats were irradiated with x-rays in a dose of 300 r. Twenty-four hours later, antilymphocyte serum, thiophosphamide, or trimetin in doses of 0.3 ml, 3 mg/kg, and 2 mg/kg, respectively, were injected. Antilymphocyte serum was obtained by immunizing rats with mouse spleen cells. Administration of immunosuppressants (cytotoxic agents) was repeated twice per week for four weeks. Combinations of antilymphocyte serum with trimetin, antilymphocyte serum with thiophosphamide, and thiophosphamide with trimetin were used in the same manner. As shown by tests on control rats that had been irradiated but not treated with immunosuppressants, irradiation resulted in a gradual decrease of the content of gamma-globulins in the blood serum during the next four weeks. The effect of both irradiation and immunosuppressants resulted in a much greater decrease of the gamma-globulin content. The decrease was generally greatest during the third week of 1/2

USSR

AYRAPETYAN, F. O., et al., Biologicheskiye Zhurnal Armenii, No 7, 1971,
pp 75-80

therapy must be comprehensive and include agents that act on the main syndromes: hematopoietic, hemorrhagic gastrointestinal, and infectious disorders.

USSR

UDC 617-001.28-092.9-085.272.6:576.963.32

AYRAPETYAN, F. O., AVETYAN, N. G., and ALAVERDYAN, M. I., Radiobiology
Sector, Ministry of Health, Armenian SSR

"Chemical Protection and Comprehensive Treatment of Acute Radiation Sickness
in Mice Irradiated With Sublethal Doses"

Yerevan, Biologicheskiye Zhurnal Armenii, No 7, 1971, pp 75-80

Abstract: White mice received L-cysteine prior to irradiation (500 r) and immediately afterward chondroitinsulfuric acid, sigmamycin, colimycin, and vitamin B₆ daily for 20 days. All the animals developed typical radiation sickness, but the symptoms were much milder and recovery set in sooner in the treated animals than in the irradiated but untreated control. For example, restoration of the WBC set in after 7 to 10 days, whereas leukocytopenia persisted and increased in the controls. The survival rate of the experimental animals was 80 to 82% compared with 22% in the controls. The viscera of the treated animals contained far fewer hemorrhages than the controls. The combination of cysteine, antibiotics, and vitamin B₆ was effective in restoring tissue permeability, thus inhibiting the development of postradiation hemorrhages and blocking autoinfectious processes. In view of the complexity of the pathogenesis of acute radiation sickness and the variety of pathological changes,

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2/2 008

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0125707

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ZN SELENOCYANATES DECOMP. IN
EXISTANCE OF ZN (SECN) SUBN PRIME2 PRIME NEGATIVE N, N EQUALS 1-3, CAN BE
DEMCNSTRATED. THE FOLLOWING POTENTICMETRICALLY DETD. STABILITY CONSTS.
REPORTED (SOLVENT AND CONSTS. FOR N EQUALS 1-4, RESP., GIVEN): AS
SHOWN ON MICROFICHE. THE INCREASED STABILITY OF THESE COMPLEXES IN
MECN OVER THAT IN HCCNME SUB2 IS ATTRIBUTED TO THE STRONGER ASSOCN. OF
THE METAL CATIONS WITH THE LATTER SOLVENT. FACILITY: KIEV. GDS.
UNIV. IM. SHEVCHENKU, KIEV, USSR.

UNCLASSIFIED

1/2 008 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--SELENOCYANATE COMPLEXES OF ZINC AND CADMIUM -U-

AUTHOR--(03)-SKOPEAKO, V.V., ALASANIYA, R.M., GLUSHCHENKO, L.V.

COUNTRY OF INFO--USSR

SOURCE--UKR. KHIM. ZH. 1970, 36(2), 129-33

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ZINC COMPLEX, CADMIUM COMPLEX, CYANATE, SELENIUM COMPOUND,
CHEMICAL STABILITY, ACETONITRILE, SOLVENT ACTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/2123

STEP NO--UR/0073/70/036/002/0129/0133

CIRC ACCESSION NO--AP0125707

UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0105590

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MGFE SUB2(1 NEGATIVEX) MINUS CR SUB2X O SUB4 SOLID SOLNS. (WHERE X EQUALS 0, 0.3, 0.5, 0.7, AND 1.0), PREPD. BY CONVENTIONAL CERAMIC TECHNOLOGY, WERE STUDIED BY HIGH TEMP. X RAY DILATOMETRY. PRIOR TO THE MEASUREMENTS, THE SAMPLES WERE SUBJECTED TO HOMOGENIZATION ANNEALING AT 1850DEGREESC FOR 5 HR, WITH SUBSEQUENT SLOW COOLING (SIMILAR TO 30-50DEGREES-HR). THE LATTICE PARAMETERS WERE ALSO DETD. THE NONLINEAM COURSE OF THE CURVES SHOWING THE TEMP. DEPENDENCE OF THE LATTICE PARAMETERS ATTESTS TO AN INCREASE IN THE THERMAL EXPANSION COEFF. WITH TEMP. THE THERMAL EXPANSION COEFF. DECREASES MONOTONICALLY FROM MGFE SUB2 O SUB4 (M.P. EQUALS 2020DEGREES K) TO MGCR SUB2 O SUB4 (M.P. EQUALS 2470DEGREES K). THE LATTICE PARAMETER OF THE SOLID SOLN. CHANGES IN THE SAME DIRECTION AS THE THERMAEXPANSION COEFF.

UNCLASSIFIED

1/2 023 UNCLASSIFIED PROCESSING DATE--18SEP70
TITLE--THERMAL EXPANSION OF MGFE SUB2 O SUB4 AND MGCR SUB2 O SUB4 SOLID
SOLUTIONS -U-
AUTHOR-(02)-VISHNEVSKIY, I.I., ALAPIN, B.G.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, NEORG. MATER. 1970, 6(2), 400-1

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--CERAMIC MATERIAL, THERMAL EXPANSION, SOLID SOLUTION, X RAY
ANALYSIS, CRYSTAL LATTICE STRUCTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1988/0607

STEP NO--UR/0363/70/006/002/0400/0401

CIRC ACCESSION NO--AP0105590

UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0105551

ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. THE CHANGE IN THE NICR SUB2 O SUB4 STRUCTURE, AS WELL AS IN ITS THERMAL COND. AND THERMAL EXPANSION, DURING THE TRANSITION FROM THE TETRAGONAL TO THE CUBIC PHASE WAS STUDIED. THE SAMPLES WERE PREPD. BY CONVENTIONAL CERAMIC TECHNOLOGY. THE TRANSFORMATION OF NICR SUB2 O SUB4 FROM THE TETRAGONAL TO THE CUBIC PHASE IS A 1ST ORDER TRANSITION, AND IT PROCEEDS AT 300DEGREES K. THE CHANGE IN THE SP. VOL. WAS SMALLER THAN 0.001. THE THERMAL COND. FOR NICR SUB2 O SUB4 WAS MEASURED AT 130-900DEGREES K, AND THE THERMAL EXPANSION WAS MEASURED AT 350, 2000DEGREES K. THE MIN. ON THE CURVE SHOWING THE TEMP. DEPENDENCE OF THERMAL COND. NEAR THE TRANSITION TEMP. IS CAUSED BY THE PHONON LATTICE INTERACTION DURING A CHANGE IN THE SYMMETRY OF THE CRYSTAL LATTICE.

UNCLASSIFIED

1/2 021 UNCLASSIFIED PROCESSING DATE--18SEP70
TITLE--JAHN TELLER EFFECT IN THE NICR SUB2 O SUB4 SPINEL -U-
AUTHOR-(03)-VISHNEVSKIY, I.I., ALAPIN, B.G., SKRIPAK, V.N.
COUNTRY OF INFO--USSR
SOURCE--IZV. AKAD. NAUK SSSR, NEORG. MATER. 1970, 6(2), 314-18
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY, PHYSICS
TOPIC TAGS--CRYSTAL LATTICE STRUCTURE, NICKEL COMPOUND, CHROMIUM COMPOUND,
OXIDE, THERMAL CONDUCTIVITY, THERMAL EXPANSION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--193R/0566 STEP NO--UP/0363/70/006/002/0314/0318
CIRC ACCESSION NO--AP0105551
UNCLASSIFIED

USSR

UDC 546.46'21'11'212,54-17

PIROGOV, YU. A., ALAPIN, B. G., and PROKUDIN, V. YU.

"Study of Thermal Conversions of the Crystalline Trihydrate of Bisubstituted Magnesium Phosphate"

Moscow, Izvestiya Akademii Nauk SSSR, Neorganicheskiye Materialy, Vol 8, No 5, 1972, pp 878-880

Abstract: Phase conversions of the crystalline trihydrate of bisubstituted magnesium phosphate are studied in the 20-900 ° C temperature interval. The data from the literature on the formation of magnesium tetrametaphosphate upon heating of $MgHPO_4$ were not confirmed. It was established that the crystalline trihydrate of bisubstituted magnesium phosphate is converted upon heating to pyrophosphate through an amorphous phase. The magnesium pyrophosphate forms microcrystalline aggregate pseudomorphoses from the initial muberiite crystals.

1/1

2/2 015 UNCLASSIFIED PROCESSING DATE--30OCT70
CIRC ACCESSION NO--AP0112725
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE HYDROLYTIC POLYCONDENSATION OF
PHSICL SUB3 GAVE (PHSIO SUB1.5) SUBN (I), MOL. WT. SIMILAR TO 3 TIMES 10
PRIME4. THE DEPOLYMN. OF I WITH ME SUB3 SIOK, ET SUB3 SIOK, ME SUB2 (F
SUB3 C-CH SUB2 CH SUB2)SIOK, OR THEIR MIXTS. IN XYLENE AT 140DEGREES,
FOLLOWED BY REACTION OF THE OLIGOMERS WITH ME SUB3 SICL GAVE OLIGOMERS,
SUCH AS ((ME SUB3 SIO) SUB2 SIPH) SUB2 O, II, III, OR IV. THE OLIGOMERS
WERE PURIFIED BY DISTN. MORE COMPLEX OLIGOMERS GAVE ONLY LOW DISTN.
YIELDS AND THEIR STRUCTURES WERE NOT ESTABLISHED. THESE OLIGOMERS ARE
STABLE TO SIMILAR TO 350DEGREES. FACILITY: MOSK. INST. TONKOI
KHIM. TEKHNOL. IM. LOMONOSOVA, MOSCOW, USSR.

UNCLASSIFIED

1/2 015 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--PHENYLTRIALKYL SILOXANE OLIGOMERS WITH BRANCHED MOLECULAR STRUCTURE
-U-
AUTHOR--(05)-TYERSKAYA, S.A., ANDRIANOV, K.A., CHERNOBROVKINA, M.N.,
TIKHONOV, V.S., ALANICHEV, V.N.
COUNTRY OF INFO--USSR

SOURCE--ZH. OBSHCH. KHIM. 1970, 40(2), 339-46

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SILOXANE, HETEROCYCLIC OXYGEN COMPOUND, CONDENSATION REACTION,
MOLECULAR STRUCTURE, BENZENE DERIVATIVE, CHEMICAL STABILITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1992/1735

STEP NO--UR/0079/70/040/002/0339/0346

CIRC ACCESSION NO--AP0112725

UNCLASSIFIED

2/2 015

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0112725

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE HYDROLYTIC POLYCONDENSATION OF
 PHSICL SUB3 GAVE (PHSIO SUB1.5) SUBN (I), MOL. WT. SIMILAR TO 3 TIMES IO
 PRIME4. THE DEPOLYMN. OF I WITH ME SUB3 SIOK, ET SUB3 SIOK, ME SUB2 (F
 SUB3 C-CH SUB2 CH SUB2)SIOK, OR THEIR MIXTS. IN XYLENE AT 140DEGREES,
 FOLLOWED BY REACTION OF THE OLIGOMERS WITH ME SUB3 SICL GAVE OLIGOMERS;
 SUCH AS ((ME SUB3 SIO) SUB2 SIPH) SUB2 O, II, III, OR IV. THE OLIGOMERS
 WERE PURIFIED BY DISTN. MORE COMPLEX OLIGOMERS GAVE ONLY LOW DISTN.
 YIELDS AND THEIR STRUCTURES WERE NOT ESTABLISHED. THESE OLIGOMERS ARE
 STABLE TO SIMILAR TO 350DEGREES. FACILITY: MOSK. INST. TONHOI
 KHIM. TEKHNOL. IM. LOMONOSOVA, MOSCOW, USSR.

UNCLASSIFIED